



# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME;

N. F. Davis, Drier & Elevator, Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE  
Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *eighteen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. THE UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS OF THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

RICE

'Calpearl'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington this 27th day of May in the year of our Lord one thousand nine hundred and eighty-two.

Attest:

*Kenneth H. E.*  
Acting  
Commissioner  
Plant Variety Protection Office  
Grain Division  
Agricultural Marketing Service

*John R. Block*  
Secretary of Agriculture







BREEDING HISTORY OF CALPEARL SHORT-GRAIN RICE

Calpearl is a very early-maturing, short-stature, high-yielding, short-grain rice of excellent quality. It was developed in the rice-breeding laboratory of the N. F. Davis Drier & Elevator, Firebaugh, California, by Dr. C.H. Hu. 3/24/81  
Calpearl was a pure line selected from a cross hybrid, NFD-62, which was made in 1976. The parents were Calrose 76 (female) and NFD-4-2-1-1 (male). NFD-4-2-1-1 was a hybrid  $F_5$  line selected from a hybrid of Earlirose/IR 1813-16-4-1 by Mr. Loren L. Davis, a former rice breeder at the N. F. Davis Drier & Elevator. IR 1813-16 was a hybrid line of Jin Heung/IR 262-43-8-11/Calady, which was released from the International Rice Research Institute in the Philippines, and IR 262 was Peta//Peta

\*1 T(N)1. 3/24/81

The  $F_1$  plants of NFD-62 were grown in the greenhouse at the N. F. Davis Ranch in Firebaugh during the winter of 1976.  $F_2$  populations were planted and a number of plants selected during the cropping season of 1977.  $F_3$  became pedigree lines and were grown in the greenhouse again for the promotion of advance generations in the winter season of 1977.  $F_4$  lines were planted in the 1978 cropping season. Plants of NFD-62 lines ( $F_4$ ) were found to have distinguishing seedling vigor, high tillering ability, and short straw with compact panicles. A number of earlier-matured plants were selected and seed multiplied at the winter nursery in the Hawaiian Islands in 1978. Under unfavorable weather conditions, different reactions on







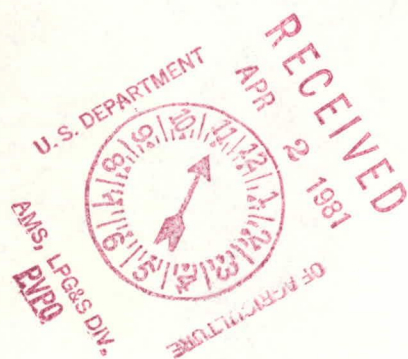
spikelet fertility were found among these  $F_5$  lines. Seeds of selected lines were harvested and brought back to Firebaugh. Two preliminary yield trials were taken on NFD-62 lines in comparison with existing California rice cultivars. The results were as follows:-

	<u>Seeding date</u>	<u>Days to 50% heading</u>	<u>Plant height(cm.)</u>	<u>Yields cwt./ac.</u>	<u>Lodging %</u>
NFD-62A	May 14	88	90	127	20
S-6	May 14	96	117	111	50
NFD-62C	June 11	81	91	126	15
Earlirose	June 11	82	118	108	100
Earlirose 76	June 11	85	116	101	60
M-101	June 11	85	89	100	80
M-301	June 11	85	95	93	15

Two seeding date trials in 1979 showed that NFD-62 lines produced yields superior to S-6, a current popular short-grain variety in California, and other early-maturing varieties, and also maintained their high yields after delayed plantings. The NFD-62C lines showed particular promise in the uniformity and early maturity in seed increase plots in 1979, as well as in different planting seasons in 1980.

To ascertain yielding capacities and adaptability to environment in different rice-growing areas, comprehensive yield trials were conducted at the Firebaugh rice-breeding nursery as well as in three other rice districts in California in 1980. A randomized complete block design with 22 entries and four replications was used in each location. Although comparisons were made on small plots ( $4' \times 8' = 32$  square feet base), general yielding data of the different varieties was obtained.







The results were as follows:-

Grain Yield (cwt./ac.) at four different locations						
	Merced	Stockton	Gridley	Firebaugh	Average	Duncans' test
	*Apr. 16	*May 7	*May 8	*May 15	cwt./ac.	LSD.05=7 cwt/ac.
NFD-62C(F-7)	67	85	104	147	101	A
M9	60	93	111	139	101	A
NFD-62A(F-7)	71	76	89	146	96	A
M-101	59	99	89	135	96	A

\*Seeding dates

Different Planting Dates in Firebaugh District							
	Days to 50% heading			Grain Yields (cwt./ac.)			
	*Apr. 15	*May 15	*June 15	*Apr. 15	*May 15	*June 15	Duncans' test
						Average	LSD.05=7.5 cwt/ac.
NFD-62C(F <sub>7</sub> )	101	84	77	154	147	131	144 A
NFD-62A(F <sub>7</sub> )	105	87	77	157	146	105**	137 A B
M-101	102	82	75	134	135	115	128 B C
M9	106	93	81	138	139	91**	123 C

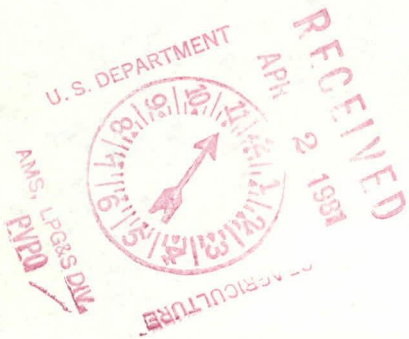
\*Seeding dates

\*\*Some grains were immature at harvest time

Statistically speaking, NFD-62 lines A and C were no different from the check varieties M9 and M-101 over four locations at 5% LSD level.

However, some grains of NFD-62A were found to be immature after delayed seeding, and, consequently, NFD-62C was finally selected to be the new short-grain variety, Calpearl.







## INSTRUCTIONS

**GENERAL:** Send an original copy of the application and exhibits, at least 2,500 viable seeds, and \$500 fee (\$250 filing fee and \$250 examination fee) to U.S. Dept. of Agriculture, Agricultural Marketing Service, Livestock, Poultry, Grain and Seed Division, Plant Variety Protection Office, National Agricultural Library Building, Beltsville, Maryland 20705. (See section 180.175 of the Regulations and Rules of Practice.) Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.

### ITEM

- 5 Give the date the applicant determined that he had a new variety based on (1) the definition in section 41(a) of the Act and (2) the date a decision was made to increase the seed.
- 13a Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of selection and multiplication; (3) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified and (4) evidence of uniformity and stability.
- 13b Give a summary statement of the variety's novelty. Clearly state how this novel variety may be distinguished from all other varieties in the same crop. If the new variety most closely resembles one or a group of related varieties: (1) identify these varieties and state all differences objectively; (2) attach statistical data for characters expressed numerically and demonstrate that these differences are significant; and (3) submit, if helpful, seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty.
- 13c Fill in the Exhibit C, Objective Description form, for all characteristics for which you have adequate data.
- 13d Describe any additional characteristics that are not described, or whose description cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the description of characteristics that are difficult to describe, such as, plant habit, plant color, disease resistance, etc.
- 14a If "YES" is specified (seed of this variety be sold by variety name only as a class of certified seed) the applicant may NOT reverse his affirmative decision after the variety has either been sold and so labeled, his decision published, or the certificate has been issued. However, if the applicant specified "NO," he may change his choice. (See section 180.16 of the Regulations and Rules of Practice.)
- 15a See section 42 of the Plant Variety Protection Act and section 180.7 of the Regulations and Rules of Practice.





# APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: See Reverse.

No certificate for plant variety protection may be issued unless a completed application form has been received (5 U.S.C. 553).

1a. TEMPORARY DESIGNATION OF VARIETY <b>NFD-62</b>		1b. VARIETY NAME <b>Calpearl</b>		FOR OFFICIAL USE ONLY PV NUMBER <b>8100094</b>	
2. KIND NAME <b>Rice</b>		3. GENUS AND SPECIES NAME <b>Oryza sativa L.</b>		FILING DATE <b>4/7/81</b>	TIME <b>11:30</b> <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">A.M.</span> P.M.
4. FAMILY NAME (BOTANICAL) <b>Gramineae</b>		5. DATE OF DETERMINATION <b>Summer of 1979</b>		FEE RECEIVED \$ <b>500.00</b> \$ <b>250.00</b>	DATE <b>4/7/81</b> <b>2/26/82</b>
6. NAME OF APPLICANT(S) <b>N. F. Davis, Drier &amp; Elevator, Inc.</b>		7. ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) <b>P. O. Box 425 Firebaugh, California 93622</b>		8. TELEPHONE AREA CODE AND NUMBER <b>209-659-3035</b>	
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (Corporation, partnership, association, etc.) <b>Corporation</b>			10. IF INCORPORATED, GIVE STATE AND DATE OF INCORPORATION <b>California</b>		11. DATE OF INCORPORATION <b>1948</b>
12. NAME AND MAILING ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS: <b>N. F. Davis Drier &amp; Elevator, Inc. MR KARL A. Limbach P. O. Box 425 Firebaugh, California 93622 Limbach, Limbach, &amp; Sutton 2001 Ferry Bldg. San Francisco CA 94111 J &amp; H 4/10/81</b>					

13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:

- ☒ 13A. Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)
- ☒ 13B. Exhibit B, Novelty Statement.
- ☒ 13C. Exhibit C, Objective Description of the Variety (Request form from Plant Variety Protection Office.)
- ☒ 13D. Exhibit D, Additional Description of the Variety. **PHOTOGRAPHS OF THE VARIETY**

14a. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? (See Section 83(a). (If "Yes," answer 14B and 14C below.)		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
14b. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?	14c. IF "YES," TO 14B, HOW MANY GENERATIONS OF PRODUCTION BEYOND BREEDER SEED?	
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	<input checked="" type="checkbox"/> FOUNDATION <input checked="" type="checkbox"/> REGISTERED <input checked="" type="checkbox"/> CERTIFIED	<b>4/10/81</b>
15a. DID THE APPLICANT(S) FILE FOR PROTECTION OF THIS VARIETY IN OTHER COUNTRIES? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO (If "Yes," give name of countries and dates.)		
15b. HAVE RIGHTS BEEN GRANTED THIS VARIETY IN OTHER COUNTRIES? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO (If "Yes," give name of countries and dates.)		

16. DOES THE APPLICANT(S) AGREE TO THE PUBLICATION OF HIS/HER (THEIR) NAME(S) AND ADDRESS IN THE OFFICIAL JOURNAL? ☒ YES ☐ NO

17. The applicant(s) declare(s) that a viable sample of basic seed of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

March 24, 1981  
(DATE)

N. F. Davis  
(SIGNATURE OF APPLICANT)

(DATE)

(SIGNATURE OF APPLICANT)



NOVELTY STATEMENT

Calpearl most closely resembles M-101, but it is a short-grain type rice. It has better lodging resistance than M-101 at ripening time. The panicles are more compact in Calpearl than in M-101, and Calpearl has a hair on the grain whereas M-101 is smoothgrained. Calpearl shows a pronounced difference from most short-grain rice in that the grain is translucent. Calpearl plants are shorter than Maxwell at maturity and less sensitive to photoperiod.







OBJECTIVE DESCRIPTION OF VARIETY  
RICE (ORYZA SATIVA)

REFERENCES: See Reverse.

NAME OF APPLICANT(S) N. F. Davis	FOR OFFICIAL USE ONLY
ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) P.O. Box 425 Firebaugh, California 93622	PVPO NUMBER 8100094
	VARIETY NAME OR TEMPORARY DESIGNATION CALPEARL

Place the appropriate number that describes the varietal character of this variety in the boxes below.  
Place a zero in first box (e.g.,  or ) when number is either 99 or less or 9 or less.

## 1. MATURITY (Seeding to 50% Heading):

LOCATION Firebaugh, Calif. AVERAGE DATE SEED May 15

<input type="text" value="1"/>	Season:	1 - VERY EARLY (85 days or less)	2 - EARLY (86 - 100)	<input type="text" value="0"/> <input type="text" value="8"/> <input type="text" value="4"/>	NUMBER OF DAYS
		3 - MIDSEASON (101 - 115)	4 - LATE (115 or more)		

<input type="text" value="1"/> <input type="text" value="7"/>	NO. OF DAYS EARLIER THAN	<input type="text" value="5"/>	}	1 - BELLE PATNA	2 - BLUEBELLE	3 - NATO
				4 - STARBONNET	5 - CALROSE	6 - REXORO
<input type="text" value=""/> <input type="text" value=""/>	NO. OF DAYS LATER THAN	<input type="text" value=""/>				

## 2. PLANT HABIT (Tiller Angle from Perpendicular at the Early Jointing Stage):

<input type="text" value="3"/>	1 - SPREADING (more than 60°)	2 - INTERMEDIATE	3 - ERECT (less than 30°)
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## 3. STEMS (Full Heading):

<input type="text" value="0"/> <input type="text" value="9"/> <input type="text" value="4"/>	CM. TALL (Soil level to tip of extended panicle on main culm)
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<input type="text" value="2"/> <input type="text" value="6"/>	CM. SHORTER THAN	<input type="text" value="5"/>	}	1 - BELLE PATNA	2 - BLUEBELLE	3 - NATO
				4 - STARBONNET	5 - CALROSE	6 - REXORO
<input type="text" value=""/> <input type="text" value=""/>	CM. TALLER THAN	<input type="text" value=""/>				

<input type="text" value="1"/> <input type="text" value="5"/>	NUMBER OF NODES
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<input type="text" value="4"/>	INTERNODE COLOR (Outside)	}	1 - LIGHT YELLOW	2 - CREAM	3 - GOLD
			4 - GREEN	5 - REDDISH	6 - LIGHT PURPLE
			7 - PURPLE	8 - DARK PURPLE	9 - OTHER (Specify)
<input type="text" value="2"/>	SEPTUM COLOR (Inside Node)				

<input type="text" value="3"/>	Tillering Ability (number of culms):	1 - 10 OR LESS (Belle Patna)	2 - 11 - 20 (Bluebonnet)	3 - ABOVE 20 (Century Patna)
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<input type="text" value="1"/>	Strength:	1 - STURDY (Starbonnet)	2 - INTERMEDIATE (Belle Patna)	3 - WEAK
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## 4. LEAF BLADE (First Leaf Below Flag Leaf):

<input type="text" value="3"/> <input type="text" value="4"/>	CM. LENGTH	<input type="text" value="1"/> <input type="text" value="1"/>	MM. WIDTH
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<input type="text" value="3"/>	Color:	1 - PALE GREEN (Starbonnet)	2 - MEDIUM GREEN (Bluebelle)	3 - DARK GREEN (Calrose)
		4 - PURPLE	5 - RED	6 - OTHER (Specify)

<input type="text" value="3"/>	Pubescence:	1 - GLABROUS	2 - INTERMEDIATE	<input type="text" value="3"/>	Flag Leaf Angle:	1 - HORIZONTAL	2 - ASCENDING
		3 - PUBESCENT				3 - ERECT	

<input type="text" value="2"/> <input type="text" value="1"/>	CM. LENGTH OF FLAG LEAF (Booting Stage)	<input type="text" value="1"/> <input type="text" value="4"/>	MM. WIDTH (widest point) OF FLAG LEAF (Booting Stage)
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## 5. LEAF SHEATH (First Leaf Below Flag Leaf):

<input type="text" value="2"/>	Ligule Length:	1 - NONE	2 - 20 MM. OR LESS	3 - 21 - 34 MM.	4 - MORE THAN 34 MM.
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<input type="text" value="2"/>	SHEATH (Outside)	<input type="text" value="1"/>	COLLAR	}	1 - COLORLESS	2 - GREEN	3 - RED			
					4 - PURPLE	5 - OTHER (Specify)				
					<input type="text" value="2"/>	SHEATH (Inside)	<input type="text" value="1"/>	LIGULE		
					<input type="text" value="2"/>	SHEATH (Seedling)	<input type="text" value="1"/>	AURICLE		



RECEIVED

APR 2 1981



AMS, L&S DIV.  
PVPD



8100094

**6. PANICLE:**

**3** Type: 1 - OPEN 2 - INTERMEDIATE 3 - COMPACT **1** Habit: 1 - DROOPING 2 - INTERMEDIATE 3 - ERECT

**2 0** CM. LENGTH **2** Exsertion: 1 - LESS THAN 90% 2 - 90 - 99%  
3 - 100% EXSERTION

**7. SPIKELET:**

**1** Stigma Color: 1 - COLORLESS (White) 2 - YELLOW 3 - PURPLE 4 - RED

**8. LEMMA AND PALEA:**

**0 5** Color at Maturity

**0 5** Apiculus color at maturity

**0 2** Apiculus color at anthesis

01 - COLORLESS (White)

02 - GREEN

03 - YELLOW

04 - TAWNY

05 - STRAW

06 - GOLD

07 - BROWN FURROWS

08 - RED

09 - PURPLE

10 - PIEBALD

11 - BLACK

12 - OTHER (Specify) \_\_\_\_\_

**3** Pubescence: 1 - GLABROUS 2 - PUBESCENT ONLY ON LEMMA KEEL 3 - PUBESCENT

**3** Awn: 1 - AWNLESS 2 - TERMINAL SPIKELETS AWNED 3 - AWNED AND AWNLESS 4 - ALL SPIKELETS AWNED

**1 8** MM. AWN MAXIMUM LENGTH

**9. SEED:**

**1** Non-pigmented coat (Pericarp) ("Brown Rice" color): 1 - LIGHT 2 - MEDIUM 3 - DARKER

**1** Pigmented coat (Pericarp): 1 - GOLD 2 - PURPLE 3 - RED 4 - BROWN 5 - SPECKLED BROWN

**1** Scent: 1 - NONSCENTED (Common) 2 - LIGHTLY SCENTED (Sadri) 3 - SCENTED (Popcorn aroma - Della)

**1** Endosperm: 1 - NON-WAXY (common) 2 - WAXY (glutinous) **1** Endosperm: 1 - TRANSLUCENT, FEW CHALKY SPOTS  
2 - CHALKY GERM TIP 3 - WHITE BELLY  
4 - LARGE CHALKY CORE 5 - OPAQUE

**2** Shattering (Threshability): 1 - DIFFICULT THRESHING (Conway) 2 - THRESHES READILY 3 - SHATTERS

**1** Dormancy: 1 - LOW (0 days) 2 - MEDIUM (30 days) 3 - HIGH (90 days or more)

**10. GRAIN:**

**2** Paddy shape (length/width Ratio): 1 - SHORT (less than 2.2:1) 2 - MEDIUM (2.2:1 to 3.4:1) 3 - LONG (greater than 3.4:1)

**MEASUREMENTS:****Grain Form**

Paddy

Brown

Milled

Length  
(mm.)

0	7	2
0	5	7
0	5	4

Width  
(mm.)

3	2
3	1
3	0

Thickness  
(mm.)

2	2
2	0
1	9

L/W Ratio

2	4
1	9
1	8

1000 Grains  
(Grams)

2	9	4
2	4	0
2	3	6

**MILLING QUALITY**

**1 8** % HULLS

**7 1** % TOTAL MILLED RICE

**11. RESISTANCE TO LOW TEMPERATURE:**

**3** Germination & Seedling vigor: 1 - LOW (Bluebelle) 2 - MEDIUM (Nato) 3 - HIGH (Caloro)

**3** Flowering (Spikelet fertility): 1 - LOW (Bluebelle) 2 - MEDIUM (Caloro) 3 - HIGH (Calrose)

**12. RESISTANCE TO:**

**1** Salinity: 1 - LOW (Bluebonnet) 2 - MEDIUM (Blue Rose) 3 - HIGH

**1** Alkalinity: 1 - LOW (Bluebelle) 2 - MEDIUM (Dawn) 3 - HIGH (Arkrose)

**13. RESPONSE TO PHOTOPERIOD:**

**1** 1 - NON-SENSITIVE (Belle Patna) 2 - WEAKLY SENSITIVE (Blue Rose) 3 - STRONGLY SENSITIVE (Caloro)







## 14. PYRICULARIA ORYZAE RESISTANCE (International races found under References, Items 2 and 4 below.)

(0 = Not Tested; 1 = Susceptible; 2 = Resistant):

GROUP	IA	IB	IC	ID	IE	IG	IH				
NUMBER	109	1 33 49 54	1 17 19	1 8 13 14	1 3	1 2	1				
RESISTANCE											

## 15. DISEASE RESISTANCE (0 = Not Tested; 1 = Susceptible; 2 = Resistant):

<input type="checkbox"/> CERCOSPORA ORYZAE	<input type="checkbox"/> ENTYLOMA ORYZAE	<input type="checkbox"/> FUSARIUM PANICLE BLIGHT
<input type="checkbox"/> HELMINTHOSPORIUM ORYZAE	<input type="checkbox"/> HOJA BLANCA VIRUS	<input type="checkbox"/> LEPTOSPHAERIA SALVINII
<input type="checkbox"/> PYTHIUM SEEDLING BLIGHT	<input type="checkbox"/> RHIZOCTONIA ORYZAE	<input type="checkbox"/> STRAIGHTENED
<input type="checkbox"/> TILLETIA BARCLAYANA	<input type="checkbox"/> WHITE TIP NEMATODE	<input type="checkbox"/> OTHER (Specify) _____

## 16. INSECT RESISTANCE (0 = Not Tested; 1 = Susceptible; 2 = Resistant)

<input type="checkbox"/> GRASS HOPPER	<input type="checkbox"/> LEAF HOPPER	<input type="checkbox"/> RICE HISPA
<input type="checkbox"/> RICE MIDGE	<input type="checkbox"/> STEM BORER	<input type="checkbox"/> STINK BUG
<input type="checkbox"/> SWARM CATERPILLAR	<input type="checkbox"/> WATER WEEVIL	<input type="checkbox"/> OTHER (Specify) _____

## 17. INDICATE A VARIETY WHICH MOST CLOSELY RESEMBLES THAT SUBMITTED:

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Tillering		Seed Shape	
Lodging		Endosperm Transp.	
Leaf Angle		Milling Quality	
Leaf Color		Cook & Proc. Quality	

## 18. GIVE THE FOLLOWING AVERAGE DATA FOR SUBMITTED AND A SIMILAR VARIETY

VARIETY	PARBOIL CANNING STABILITY (% Loss)	PROTEIN * (%)	AMYLOSE ** (%)	ALKALI REACTION *** 1.7      2.0	GELATINIZATION TEMPERATURE (°C)
SUBMITTED			17.5	6.5	Low
SIMILAR					
NAME OF SIMILAR VARIETY					

\*Hulled Rice - Dry Wt.    \*\*Milled Rice 11 - 12% Moisture    \*\*\*Average spreading value in 1.7% and 2.0% KOH Solution.

## REFERENCES

1. C. R. Adair et al, 1972. Rice in the United States: Varieties and Production. USDA Handbook No. 289 (Rev.), 124 pp.
2. J. G. Atkins, et al, 1967. An International Set of Rice Varieties for Differentiating Race of Pyricularia Oryzae. Phytopath. 57:297-301.
3. Te-Tzu Chang, 1965. The Morphology and Varietal Characteristics of the Rice Plant. IRRI Los Banos, Philippines Tech. Bulletin 4.
4. K. C. Ling and S. H. Ou, 1969. Standardization of the International Race Numbers of Pyricularia Oryzae. Phytopath. 59:339-342.
5. B. D. Webb et al, 1968. Characteristics of Rice Varieties in the USDA Collection. Crop Sci. 8:361-365.
6. Nickerson's or any recognized color fan may be used to determine plant colors of the described variety.

COMMENTS:







# MORRISON & FOERSTER

SAN FRANCISCO  
LOS ANGELES  
SACRAMENTO  
ORANGE COUNTY  
WALNUT CREEK  
SEATTLE

ATTORNEYS AT LAW  
  
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TELEPHONE (415) 813-5600  
TELEFACSIMILE (415) 494-0792  
TELEX 706141 CIOTTI UD

NEW YORK  
WASHINGTON, D.C.  
DENVER  
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BRUSSELS  
HONG KONG  
TOKYO

DIRECT DIAL NUMBER

May 4, 1995

(415) 813-5748

U.S. Department of Agriculture  
Plant Variety Protection Office  
10301 Baltimore Blvd.  
Beltsville, MD 20705

Re: Rice Varieties and Status As of April 25, 1995  
Our Reference: 99992-2

Dear Sirs:

Please send a copy of the application file for each of the certificates listed below:

<u>PY No.</u>	<u>Variety Name</u>	<u>Status</u>	<u>Status Date</u>	<u>Holder of Record</u>
8100094	Calpearl	Issued	05/27/82	N.F. Davis Drier & Elevator
8200106	California Belle	Issued	10/28/86	N.F. Davis Drier & Elevator
8700144	S2-Calpearl	Issued	01/15/88	N.F. Davis Drier & Elevator
8700145	Valencia 87	Issued	01/15/88	N.F. Davis Drier & Elevator
9000193	NFD 108	Issued	10/31/91	N.F. Davis Drier & Elevator
9000194	NFD 109	Issued	10/31/91	N.F. Davis Drier & Elevator

Enclosed is a check in the amount of \$82.00 per the facsimile received from your office on 04/28/95, copy attached.

Thank you for your assistance in this matter.

Sincerely,

*J. Michael Schiff*  
J. Michael Schiff

JMS/cr



RECEIVED  
USDA-AMS-PVP0

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